New Nouveau Brunswick CANADA

Agriculture, Fisheries and Aquaculture

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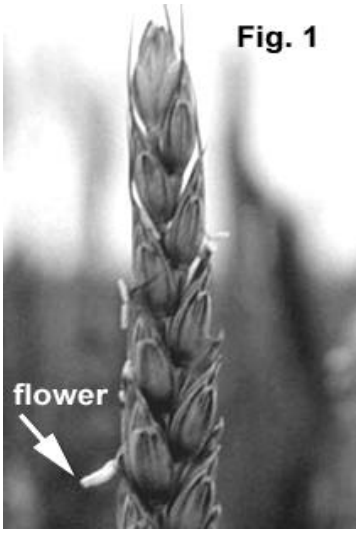
Fusarium Head Blight Newsletter II – June 2004

New Brunswick has been granted an Emergency Registration for the use of **Folicur 432 F™** fungicide on wheat to control Fusarium Head Blight (FHB). Understanding when infection occurs and how Folicur must be applied will maximize your return if you are considering this option. This emergency registration **does not apply to barley or oats** and expires at the end of the year so do not purchase more material than is needed for the current season.

Fusarium can infect wheat anytime between heading and the mid dough stage. Apply Folicur after 75 percent of the heads have fully emerged and up until 50 percent of the heads are in flower (Fig. 1). Depending on temperatures this spray window can be as little as seven days. Wet weather and poor drying conditions during the week prior to heading, and during flowering, increases the risk of Fusarium infection. The application rate is 292 ml/ha in at least 100 litres but no more than 200 litres of water per hectare (118 ml/ac in 9 to 18 gallons). Higher spray volumes can increase disease by creating an artificial infection period.



Good spray coverage is essential for disease suppression. Trials have demonstrated that the best coverage results from the use of paired forward and backward facing nozzles (Fig. 2). Add a non-ionic surfactant at a concentration of 100 ml per 10 gallons of spray. Do not apply Folicur within 30 days of harvest.

Head Blight is very difficult to control and the yield increase resulting from spraying has been variable, perhaps due to the critical requirements of proper timing and good coverage. At 18 sites in 2002, the increase in yield resulting from a single Folicur spray averaged 6 percent and ranged from 0.4 to 16 percent. Levels of mycotoxin (DON) were decreased by more than 50 percent at some sites. Although not registered for control of other diseases Folicur does give significant suppression of Septoria, powdery mildew and rust on the flag leaf and head.

DAFA Crop Development staff will conduct a FHB survey this summer by scouting fields to identify and attempt to quantify possible levels of Fusarium Head Blight infection. The NB Grain Commission will analyze in-field grain samples taken prior to and during early harvest to determine DON levels. This information will be available through local DAFA regional offices. Early harvesting and proper crop drying can reduce infection and mycotoxin development. This is even more important in years with elevated incidence of fusarium.

There are presently two New Brunswick laboratories offering testing services for cereal DON levels.

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Please contact the lab prior to shipment to verify testing, required sample protocols, costs and payment method.

Fusarium levels change between species, variety, field and location therefore, it is essential to sample effectively at harvest. Samples should be taken randomly during combining from numerous locations within a field and then mixed for a composite sample. There are numerous ways samples can be collected however the best method would be to take small samples from a stream during loading or unloading. Stream samples should be composited and sub-sampled by field to provide for reasonable segregation if necessary. Field sampling will allow lots to be segregated if DON level exceed acceptable thresholds. Samples need to be dry, stored in an air tight container in a cool dry area and sent for testing as quickly as possible. Mycotoxin levels will increase in infected samples that have not been properly dried and stored. This is also true with grain stored on-farm therefore it is very important that grain is cool and dried to appropriate storage moisture levels as quickly as possible.

For questions on this newsletter or on the broader issue of Fusarium Head Blight please contact your local New Brunswick Department of Agriculture, Fisheries and Aquaculture, Crop Development Officer for assistance.